**3GPP TSG-CT WG4 Meeting #111-eC4-224195v1**

**E-Meeting, 18th – 26th August 2022**

**Source: ZTE**

**Title: Key Issue for Avoiding Duplicate Configuration and Transmission of Shareable Data**

**Spec: 3GPP TR 29.831 v0.1.0**

**Agenda item: 6.1.3**

**Document for: Approval**

**1. Introduction**

In existing NF profile stored in the NRF, operator may configure same data part of the NF profile with same value to multiple NFs, as per network management requirement.

For example, multiple NFs (e.g. AUSF/UDM/PCF/BSF/CHF) may be configured to serve same range of UEs and thus be configured with same UE identifier ranges (e.g. SUPI/GPSI/External ID ranges) in each NF profile. These UE identifier ranges configured in the NF profile may have large volume, and operator needs to configure such large volume data to those indicated multiple NFs (e.g. same type of NFs in a NF Set, or even different type of NFs).

Such duplicate data (e.g. UE identifier ranges) introduces complexity to the NRF API and OAM system (e.g. to manage the configuring, updating, and downloading of duplicate data (e.g. UE identifier ranges). Meanwhile, this duplicate data (e.g. UE identifier ranges) reduces the signaling efficiency of NRF API, especially when the duplicate data (e.g. UE identifier ranges) have large volume e.g. upper to x million octets.

**2. Proposal**

It is proposed to agree the following changes to 3GPP TR 29.831 v0.1.0.

\* \* \* First Change \* \* \* \*

## 5.X Key Issue #X: Avoid Duplicate Configuration and Transmission of Shareable Data

### 5.X.1 Description of the use case

In existing NF profile stored in the NRF, operator may configure same data part of the NF profile with same value to multiple NFs, as per network management requirement.

For example, multiple NFs (e.g. AUSF/UDM/PCF/BSF/CHF) may be configured to serve same range of UEs and thus be configured with same UE identifier ranges (e.g. SUPI/GPSI/External ID ranges) in each NF profile. These UE identifier ranges configured in the NF profile may have large volume, and operator needs to configure such large volume data to those indicated multiple NFs (e.g. same type of NFs in a NF Set, or even different type of NFs).

Such duplicate data (e.g. UE identifier ranges) introduces complexity to the NRF API and OAM system (e.g. to manage the configuring, updating, and downloading of duplicate data (e.g. UE identifier ranges). Meanwhile, this duplicate data (e.g. UE identifier ranges) reduces the signaling efficiency of NRF API, especially when the duplicate data (e.g. UE identifier ranges) have large volume e.g. upper to x million octets.

### 5.X.2 Key issue definition

This key issue will study the following aspects:

- Which data part in the NF profile can be organized as shared data and used by multiple NFs?

- How to configure shared data (e.g. UE identifier ranges) in the NRF so that multiple NF profiles can share the same data (e.g. UE identifier ranges) and avoid duplicate configuration;

- How to download shared data (e.g. UE identifier ranges) to the request NF during NF discovery procedure or NF profile change notification procedure;

- How to handle the download shared data (e.g. UE identifier ranges) with large data volume, e.g. upper to x million octets (extremely upper to 16 million octets exceeding the maximum data size of JSON object).

\* \* \* End of Changes \* \* \* \*